

Claims

1. Method for analyzing an abnormal region on an optical recording medium, including the steps of:

- detecting (21) the abnormal region;
- determining (23, 31) the type of the abnormal region; and
- measuring (24, 32) the length of the abnormal region,

characterized in that the step of determining (23, 31) the type of the abnormal region includes:

- making a speed controlled jump (22) over the abnormal region;
- obtaining information on the type of abnormal region during the speed controlled jump (22).

2. Method according to claim 1, **wherein** the step of

determining (23, 31) the type of the abnormal region further includes:

- differentiating (23) between a first group of types and a second group of types of abnormal region based on the obtained information.

3. Method according to claim 1, **wherein** the step of obtaining information on the type of abnormal region during the speed controlled jump (22) includes evaluating a data signal (HF) and/or a track crossing signal (TC) obtained from the optical recording medium.

4. Method according to one of claims 1 to 3, **wherein** the step of measuring (24, 32) the length of the abnormal region includes one of:

- measuring (244) the time needed for jumping (22) over the abnormal region; and
- counting (324) a number of pulses emitted by a phase locked loop during jumping (22) over the abnormal region, the phase locked loop replicating a track crossing signal obtained before reaching the abnormal region in the jumping step (22).

5. Method according to one of claims 1 to 3, **further** including the steps of:

- jumping back (30) to the start of the abnormal region;
- reading (30) data stored in the abnormal region; and

5 - evaluating (31) the data for determining the type of abnormal region.

6. Method according to claim 5, **wherein** the step of evaluating (31) the data for determining the type of abnormal
10 region includes at least one of:

- evaluating a sync signal included in the data; and
- evaluating the data frequency in the abnormal region.

7. Method according to claim 5 or 6, **wherein** the step of
15 measuring (24, 32) the length of the abnormal region includes counting the number of wrong syncs in the abnormal region.

8. Method according to one of claims 1 to 7, **further** including the step of storing the position, the length and/or
20 the type of the abnormal region on the optical recording medium.

9. Method according to anyone of claims 1 to 8, **wherein** the types of abnormal region include at least one of a groove
25 region, a mirror region, a defect region, a wrong bitrate region and a wrong structure region.

10. Device for analyzing an abnormal region on an optical recording medium, **characterized** in that it performs a method
30 according to one of claim 1 to 10.

11. Apparatus for reading from and/or writing to optical recording media, **characterized** in that it performs a method according to one of claims 1 to 9 or includes a device
35 according to claim 10 for analyzing an abnormal region on an optical recording medium.